

**WHAT IS CLAIMED IS:**CLAIMS

1. An electric toothbrush comprising  
a graspable housing;  
5 a bristle holder arranged on a head portion of the housing and rotatable about an axis of rotation of the bristle holder, the bristle holder carrying a cluster of bristles; and  
a drive mechanism for the bristle holder, including  
a motor arranged within the housing, and  
a transmission member transferring a driving motion from the motor to the  
10 bristle holder, the transmission member including a drive rocker arranged to rock in multiple axes and driven by the motor to approximately traverse a double conical path, the drive rocker and the bristle holder being connected in jointed manner about an axis of articulation that is parallel to the axis of rotation of the bristle holder.
- 15 2. The toothbrush of claim 1, wherein a connection between the bristle holder and the drive rocker enables a further degree of freedom besides articulation about the axis of articulation, permitting a translatory motion between the drive rocker and the bristle holder along the axis of articulation.
- 20 3. The toothbrush of claim 2, wherein the drive rocker is seated in a notch-shaped recess in the bristle holder.
4. The toothbrush of claim 1, wherein the bristle holder is arranged in the handpiece to move along the axis of rotation, and wherein a connection between the bristle  
25 holder and the drive rocker transferring at least some corresponding movements of the drive rocker along the articulated axis to the bristle holder.
5. The toothbrush of claim 4, wherein the drive rocker is seated in a recess, a lengthwise extension of which along the articulated axis is smaller than an amplitude of  
30 motion of the drive rocker along the articulated axis.

6. The toothbrush of claim 1, wherein the bristle holder is seated on the drive rocker essentially without any play along the articulated axis.

35 7. The toothbrush of claim 1, wherein a motor end of the transmission member is coupled to the motor via a cam.

8. The toothbrush of claim 7, wherein the cam is fixed non-rotatably on a drive shaft, such that the motor end of the transmission member is driven in a circular path.

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9. The toothbrush of claim 1, wherein a bearing member displaceable longitudinally relative to the toothbrush is provided for bearing the transmission member between the motor and the bristle holder.

45 10. The toothbrush of claim 1, including a seal that insulates the transmission member from the toothbrush housing.

11. The toothbrush of claim 1, including a motor-supporting chassis attached to an inside of the toothbrush housing, wherein the motor-supporting chassis and motor are  
50 configured to be inserted into the toothbrush housing through a frontal opening in the toothbrush housing lengthwise relative to the toothbrush.

12. The toothbrush of claim 11, wherein the chassis is configured to engage automatically with the toothbrush housing when inserted in a linear motion.

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13. The toothbrush of claim 11, wherein the chassis supports a switch and defines a battery compartment containing a battery, the chassis, motor, battery and switch configured to be inserted pre-assembled into the toothbrush housing.

60           14.     The toothbrush of claim 11, wherein the chassis includes a movable contact  
breaker as a switch, the breaker operable to disconnect a battery a battery contained in a  
battery compartment of the chassis.

              15.     The toothbrush of claim 11, further comprising a rotational engagement code  
65     allowing the chassis to be inserted in only one alignment relative to the toothbrush housing.

              16.     The toothbrush of claim 11, further comprising a housing cap covering the  
toothbrush housing opening through which the chassis is inserted.

70           17.     The toothbrush of claim 1, wherein the bristle holder carries only one movable  
bristle cluster.

              18.     The toothbrush of claim 1, including at least one stationary bristle cluster and  
one movable bristle cluster on the bristle holder.

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              19.     The toothbrush of claim 1, wherein the bristle cluster is approximately circular  
in shape and is arranged to be driven in rotating oscillating manner.